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## (54) MAGNETOSTRICTION TYPE VIBRATING FAN

## (57) Abstract:

PURPOSE: To generate a strong vibration wave by a simple structure by a method wherein a tensile force in the reverse direction to the direction of displacement of a magnetic body is given by an elastic body to the dividing-partside ends of diaphragms disposed oppositely, when the diaphragms are made to vibrate.

CONSTITUTION: When a current of a prescribed frequency is supplied to an aircore coil 3 of a magnetostriction type actuator 1, a magnetic field is impressed on a magnetostrictive rod 2, this magnetostrictive rod 2 is displaced thereby in the longitudinal direction and a vibration corresponding to the prescribed frequency is transmitted to diaphragms 10 and 11 from output ends 9a and 9b. Herein the positions of fixation of the diaphragms 10 and 11 to the magnetostriction type actuator 1 are fulcrums in the principle of the lever, while a force of pulling against each other is given by an elastic body 14 to the driving-part-side ends 10b and 11b of the diaphragms 10 and 11. Therefore displacement occurs in the diaphragms 10 and 11 due to their expansion in the direction indicated by an arrow (x) by the principle of the lever. Thereby a strong vibration can be obtained.

